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# THE JOURNAL OF PHILOSOPHY

## PSYCHOLOGY AND SCIENTIFIC METHODS

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### THE RELATIONS OF INDIVIDUAL AND EXPERIMENTAL PSYCHOLOGY TO SOCIAL PSYCHOLOGY.<sup>1</sup>

PROFESSOR JUDD gives a brief statement<sup>2</sup> of the way in which the problem of modern experimental psychology arose. The account is interesting as showing how, as an integral part of the development of a certain form of control, a new "science" may be differentiated. From the standpoint of psychology the origin of the experimental method was wholly external and for a long time unrecognized. From the demands of another sort of experimentation, and in the service of another science, experimental psychology came into being. Some consideration of this fact may prove of general interest.

The specific problem to be solved in this case was that of determining the amount of error that was involved in certain astronomical investigations, the inquiry arising from a suspicion that the hand was slow in recording what the eye perceived. Theoretical exactness required that the hand should record, without loss of time, what the eye noted through the telescope. For the purpose of correcting the error, the astronomers, as a mere matter of developing their own technique, and with no interest whatever in the problems of psychology as such, measured the eye-hand reaction-time of the one who made the record. In this process, as an interesting fact (of erudition), it was noted that the reaction times of different persons, the "personal equation," varied.

Now, had these men been interested in this direction, this great discovery might have become immediately the basis of definite psychological method; but for these astronomers it was only an incident, more or less regrettable, of the day's work; and the psychologists of the time seem not to have been able to make any constructive use of the facts or to fit them into their subject in any way. To the extent

<sup>1</sup> For standpoint and material suggestions I am indebted to Professor George H. Mead, of the University of Chicago.

<sup>2</sup> "Psychology," p. 333.

that it was noticed, or used, at all, it was taken over in a wholly external sort of fashion, without analyzing the problem farther; it seems to have been a kind of scientific toy, making some curious, rather than useful, additions to knowledge. They used the method as if they, too, had turned astronomers, and as if the whole interest of science was in providing data for the correction of "personal equations." Little attention was paid, in these earlier days, to introspective reintegration of these facts: the results of their observations and measurements were averaged in a purely external way, and consequently added little to the actual knowledge of psychological processes.

But little by little the technique and method of experimental psychology have been developed; and the field of operation has been changed from that of external observation and mechanical measurement to that of charting out the whole field of the psychical life. But it would seem that a certain exhilaration has carried the experimental psychologist too far, until we have to-day a very great overworking of the method, though it is likely that this misuse will have its value in helping to more completely determine the field and problem of psychology. Let us carry the argument through to the end.

Modern science, growing out of individual experience, found the forms of psychological measurement and analysis helpful in providing a check upon its own developing technique. In its turn, psychology, as it became conscious of itself and began to call itself a "science," considered individual experience its proper field of investigation, like the other and older sciences: it assumed that it could render very much needed service by investigating in accurate ways the whole round of mental phenomena; and its method was to be a generalization of the incidental work of the astronomers. It was thought that, since the method gave valuable results in the case of its use by these devotees of the oldest of the sciences, there could be no doubt of its legitimacy and adequacy as a method in the newest. But it is to be noted that the astronomers used this psychological method for the purpose of perfecting their own operations, not for the sake of the psychological information: that is to say, psychology was, for them, not a "science" in itself, but an important element in the technique of their science; and it would seem that the generalization of their method would give us, not a new "science" of psychology, but a very important new sort of check upon the general technique of science. The mere generalization of the work of the astronomers does not give us a "psychology" with scientific standing; what we get is an *ancilla scientiarum*, and of the physical sciences at that.

For the method was, and is, essentially an abstraction. As used

by the astronomers it was perfectly concrete: an effort to more adequately control a specific social experience. But when it was generalized into "experimental psychology," it became abstract, as any mere technique must inevitably become. To be sure, psychology has strenuously denied this, insisting upon its right to scientific standing. But when closely pressed to define its actual field of knowledge, it has never been quite able to answer conclusively. For example, if we take such an avowedly functional treatment as that of Angell we find a rather questionable statement of the field of knowledge. He says<sup>3</sup> "psychology is commonly defined as the science of consciousness." But when we turn to page 65 of the same book we find consciousness spoken of as the instrument of development "of those fixed and intelligent modes of reaction which we call habits." Now, any particular scientific fact, or law, or system, is, for the time, a "fixed and intelligent mode of reaction," that is, it is a social or individual habit. Accepted sciences are the intellectual and practical habits, or fixed modes of controlling experience, in any period. Consciousness, from this point of view, becomes the tool of scientific development; and psychology as the "science of consciousness" becomes the method of developing the technique of general science: and this brings us back to our astronomers.

Most modern writers take the point of view of Angell. Some have tried to get an undisputed subject-matter for psychology by a process of eliminating all the physical and physiological materials of experience, hoping to have something left. But from the standpoint of the sciences which deal with the materials thus eliminated, there is to be nothing left: all is to be finally stated in terms of the iron law of cause and effect. And just as the astronomers had no interest in their results, save as a part of their own technique, so modern science seems to care little for any "science of consciousness" that offers itself as an abstract and independent field of knowledge. That which has been called prejudice on the part of the older sciences is probably just the healthy and justifiable feeling that psychology as it has been known in the past can have no other standing in any real organization of the sciences than it had with those first astronomers: it is a part of the technique of science, not a science in itself.

The experience of the individual has been the rich field of development of modern science; and this has been but the more clearly seen as psychology has developed and the technique of control of experience in the various sciences has been refined. But this development of physical science, with psychology as its general technique, has been accomplished at the sad cost of leaving psychology itself objectless, homeless, like the "man without a country." But, not

<sup>3</sup> "Psychology," p. 1.

only has this development, as thus stated, left psychology as a tool, rather than a science; it has also made it, practically, utterly useless in the field of the social sciences. It is not without reason that the sociologist has denied the right of the psychologist to any voice in the determination of the method of sociology. It is not to be wondered at that the educationist has been skeptical of the value of psychology as an aid to the teacher. Psychology as it has been known, that is, experimental psychology developed on the basis of the work of the astronomers, has had very little to do with that stage of experience that precedes the differentiation of the physical object. It has been called into existence for the purpose of a clearer definition of the physical object (note the astronomers again), and it has had, in the past, no method of dealing with the social object save in terms of the abstractions which it employs in the case of physical objects: that is to say, it must reduce the social object to physical and abstract terms,—just what the sociologist and educator have not wanted.

And here we come to the point made earlier in this discussion, that in the development of psychology there has been a miscarriage of method, or else that which appears so has been but a necessary stage in the development of the subject. Psychology itself has passed through several stages in the whole course of its development. Before the beginnings of the experimental point of view, the object of knowledge in such psychology as there was, was psyche,—the soul,—disconnected, or only temporarily connected, with the world of observable phenomena. Then there came, after the development of the experimental method, a very orgy of “scientific” progress, in which the ideal was that along with the world of physical objects the world of psychical existences was to be reduced to a statement in terms of motion; the soul was ruled out of existence. To this end was psychology, handmaid of the physical sciences but ambitious for a realm of her own, thus sadly reduced.

But of course the whole range of the social sciences, the whole wide content of morality and religion, and the sober common sense of the physical sciences themselves, all rebel against the extreme implications of this doctrine, because it leaves out of account the whole world of the ends of life, the vitally human side of life: it loses sight of the *ends* of life, and focuses all its attentions upon the “means” of life; but without ends the very need of “means” passes, and the so-called “means” pass also. The effort to state the self, or to sum up psychology, in terms of molecular motion had, of course, to run its full length and determine its own impossibility. *But* if this attempt is impossible, it is so because there is something in the field attacked by psychology that can not be stated in terms of molecular

motion; that is to say, there is something which the physical sciences can not take care of. And, in recent years, in the general development of the theory of evolution and its wider generalization and application to more inclusive ranges of materials, the mind, or the self, has slowly become recognized as the center of organization of experience: this mind, or self, is now no longer a mere left-over, but a real and positive factor in the world, a fact in the full sense of the term, and as such as much an object of knowledge as the molecule or the atom. Psychology thus becomes the science of the self,—the self as a reality for experience; it has accordingly a subject-matter of its own, and a right to be called a science in at least as real a sense as is physics the science of the molecule, or chemistry the science of the atom.

But from this point of view psychology can no longer be defined as the science of consciousness; it is now the science of the self, and the self is larger than consciousness; it is at least as large as the whole of experience. This means that psychology must give up its old position (a position that is still maintained in the laboratory attitude) as the handmaid of the physical sciences, and become the science of the self in all the relations of that self, its genesis, its development, and all its rich differentiations of activity, interest, and content. But at this point we see that psychology has thus become social psychology. And there can be no escape from the fact that if psychology is to be a real science in its own right it must become social; for in no other way can it find a real object of knowledge that shall be its own.

When, however, psychology has thus become social, it can absorb all the materials that the laboratories can bring it, and give to those materials a meaning they have never had before. These results, worked out in psychological laboratories, are just like the results of the work of the astronomers, materials that have, or may have, a social value in perfecting the general technique by which science is ultimately to control all experience in the interest of a nobler human living. And from this point of view psychology becomes of use also in the social sciences; becomes, indeed, as the science of the self, the basis of the technique of the social sciences; and no follower of any of the special social sciences can ever again, save by confessing his ignorance, deny to the new psychology, as science of the self, the right to some voice in determining the materials, methods, and results of that special science. Social psychology will be heard from in every one of the special social sciences in the near future.

Essentially, then, psychology has left the narrow field of service to the physical sciences (though its service is still at their disposal), and, finding a proper object for a special science in the "self," is

about to find a scientific standing it has never had before. At the same time it is going to find a wider range of usefulness as the technique of all the sciences: the social sciences, first of all, and the physical sciences, also, as these arise in the constant definition of the conditions of life. Psychology has become social psychology, the science of the whole concrete activity of the social self, or selves; social psychology is the science of the active self, the self at work, organizing and reorganizing its world of experience. The impulses to organization of experience are native, and, in man at least, they are social in their nature. The act needs no motive, and it presupposes a social situation. In the carrying out of the act, in so far as there is a conflict or a hindrance to be overcome, there will appear a need of a definition of means to the end in view, a more complete determination and organization of the conditions under which the act may go on. This was the situation in which the astronomers had found themselves many times; they had made many corrections and readjustments, of which the one here described was for them only another. In many of their adjustments ordinary reflection upon the situation had been sufficient. But in this particular case mere reflection was not sufficient; the telescope did not solve the problem: there was still a difficulty that had to be more adequately understood and controlled; and a further refinement of method was necessary. Thus were undertaken the first experiments along psychological lines; only, they were not experiments in psychology at all; they were efforts to secure practical efficiency and a greater social utility in a science that cared nothing for psychology; and for the astronomers they never became psychological materials. That is to say, the astronomers never saw the full implications of their incidental experiments.

Now, it is only a social psychology that can see the whole act in all its bearings. The social psychologist sees the astronomer himself engaged in the more comprehensive problem of a careful determination of the character of the universal human environment: he is a social worker, in spite of his protests, and his need of a more complete determination of the "personal equation" is ultimately a social need. Social psychology can also see why this method was finally seized upon and hypothetically erected into a science in its own right. And it is possible to see how, and why, psychology had to come back from its intellectualistic, individualistic, and purely mechanical vagaries to the more human conception of the whole man living his whole life in a complete social world. Social psychology is undertaking to deal with a concrete social situation, the wholeness of an act in all its immediate richness of emotional and conative elements as well as its purely intellectual or "scientific" phases.

Within this whole concrete act lies the specific problem of determining the *means to the end*: this is true for the simplest act and for the most complex. So within the whole of social psychology lie the various problems of the experimental determination of the actual conditions of activity; but this experimental determination is but one phase of the whole act; and if this determination is to have any other than a purely erudite interest, the demand for it must rise out of a concrete situation, and the determined result must be such as can get back into concrete activity and be tested by more organic conditions than those of the laboratory.

The self develops through activity and emotional experiences which are organized into older experiences, as occasion demands, by the intellectual processes. Social psychology of the McDougall type is the science of the development of the self or selves; its unit of study is the concrete act, in all its organic richness. Within this concrete act lie the beginnings of all the sciences, social as well as physical, just as the beginnings of psychology lay within the concrete act of the astronomer. These germs of rudimentary sciences come to consciousness at the call of some specific need. Experimental psychology arose to meet the need of more exact methods of determination of an object in a particular physical science, but it might just as well have arisen in any other of the sciences: it came in to help physical science. It proved so helpful that some who became interested undertook to give it an independent scientific standing. But after thorough tests it has been found that that hypothesis is partially unfounded: psychology as a purely laboratory performance can have no real scientific standing, because it has no real object of knowledge. But the hypothesis was not utterly false; and the feeling that there was room for a real science of psychology was well founded, though its foundation is not in the laboratory. After these fifty years and more of experimentation and discussion, psychology is coming into its own, the actual object of a real science is emerging into consciousness, and social psychology, having as its object of knowledge the development of the concrete social self, is here to stay.

Under this larger conception, the work of the laboratory psychologist comes to have a value it never had or could have before: it has a social meaning; his work arises out of actual social situations, more or less immediate, and his results go back into social situations, more or less close by; if they do not, then he is losing his way among barren and profitless abstractions.

And under this conception psychology comes to have meaning, essential meaning, for all the social sciences, but especially for education and the work of the teacher. In the midst of the growing



modern world, with its demands for more democracy and at the same time more efficiency, the teacher is hard pressed. The whole modern world, but especially the school, needs a new insight into the concrete processes of the developing self. The laboratory can offer detached fragments of isolated cases; the older analytic psychology can offer some general suggestions on mental processes: these are good when they can be seen in their concrete setting in the actual course of the child's developing experience. But they are decidedly bad, as Münsterberg has shown, when they are taken as final statements of processes and blindly followed without thought as to the organic relationships they sustain to the rest of the developing experience of the victim. Social psychology is the modern attempt to redintegrate the experiences of the individual, to present that experience in concrete forms, with as much richness of detail as the analytical psychologist and the laboratory operator can furnish. For while the experimentalist is a good man to go to for data as to detailed operations, it is only as he leaves his laboratory to find his problems, and takes his results back into the social world, there to restate them concretely in the flow of living human experience, that he can truly be said to be a real psychologist.

The hope for the schools and for education generally, even the very hope for democracy itself, lies in making the teacher conscious of the processes of development as these are being restated in terms of social psychology. The teacher will have, must have, psychology of some kind; the only relief from the intolerable psychology which Münsterberg so rightly criticizes is found in the social psychology which can see the child as child, and also as mechanism; that is, as *end* of education and as *means* to education, at the same time. The educational psychology of the future must be a genuinely social psychology.

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## SOCIETIES

### TWENTIETH MEETING OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

THE twentieth annual meeting of the American Psychological Association, held in Washington, D. C., December 27, 28, 29, 1911, in affiliation with the Southern Society for Philosophy and Psychology, was of rather unusual interest. The fact that it was the twentieth meeting brought up reminiscences regarding the founding of the association and rather gratifying reflections on the growth